The history of the polyfunctional 𗗙 jij¹ in Tangut

How did the accusative/genitive syncretism come about?

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This paper focuses on the history of a polyfunctional case marker 𗗙 jij¹ in Tangut, an extinct Rgyalrongic language (Sino-Tibetan). This versatile case morpheme is a typological rarity of maximum syncretism among several abstract case functions, including differential object marking, the genitive, and the oblique (which overlaps with the dative). For one thing, accusatives originating from datives or spatial sources are rarely found with additional genitive functions; for another, reported instances of accusative/genitive syncretism seldom include other functions. The principal hypothesis of this paper is that the Tangut 𗗙 jij¹ may be the result of multiple grammaticalization processes stemming from a proto-locative source. These processes can be subsumed under two pathways, one leading from an allative to an accusative, with an intermediate oblique stage, and the other from a locative to a genitive. Although both of these development pathways are frequently attested, the Tangut 𗗙 jij¹ remains a typological rarity due to their superposition.

Keywords: case syncretism, differential object marking, locative, Tangut, Rgyalrongic languages

1. Introduction

This paper focuses on the diachronic development of the polyfunctional case marker 𗗚 jij¹ in Tangut (Glottolog: tang1334, in Tangut 𗼇 $mjiŋ
wu' in 𗗚 jij¹, in
Chinese 西夏语 xīxià yǔ), an extinct language with its own scripts, once spoken in the Tangut Empire (1038–1227) in present day northwestern China.1

Though once classified into the Qiangic branch (Tibeto-Burman, Sino-Tibetan) (Wang 1933; Sun 1991; etc.), recent studies on Sino-Tibetan phylogeny and historical linguistics (Lai et al. 2020; Sagart et al. 2019) show that Tangut is a close relative of the modern Rgyalrongic languages, a group of unwritten Tibeto-Burman languages, spoken in southwestern China (Aba Tibetan and Qiang Autonomous Prefecture and Ganzi Tibetan Autonomous Prefecture, Sichuan Province cf. Figure 1). These languages are known for their complex phonology and rich polysynthetic morphology, which several authors consider to be conservative features (Jacques 2004; Hill 2019; Zhang et al. 2019; etc.). The subgrouping of the Rgyalrongic group is illustrated in Figure 2.

Figure 1. Geographic distribution of Tangut and modern Rgyalrongic languages

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1. Since this paper has been written with typologists/diachronicians, Sino-Tibetans, and Tangutologists in mind, Tangut characters are provided alongside their number as listed in the Tangut-Chinese Dictionary (Li 2008). Transcriptions follow the reconstruction of Gong (2003). However, knowledge on Tangut characters is not necessary for understanding the content of the paper. The present analysis is mainly based on two materials translated from Chinese texts, 輯林 (Leilin, 'The Forest of Categories', eds. Shi et al. 1993) and 新集慈孝類詳錄 (Xinji Cixiaozhuan, 'Newly Collected Biographies of Affection and Filial Piety', ed. Jacques 2007).
The most important functions of the postposition 𗗙1139_jij1 include differential object marking (i.e. accusative), and the genitive. It reflects the Proto-Rgyalrongic yod postposition =*j(V), the functions of which vary across different sub-groups. No modern Rgyalrongic varieties exhibit the same accusative/genitive syncretism as the Tangut 𗗙1139_jij1. Before discussing the source of 𗗙1139_jij1 and the processes leading to its accusative/genitive syncretism, I will first briefly introduce the phenomenon of differential object marking and the sources of its markers.

1.1 Differential object marking

‘Differential object marking’ (henceforth DOM) refers to the non-uniform marking of objects within the same language, depending on their semantico-pragmatic properties (Aissen 2003; Bossong 1985; Dalrymple & Nikolaeva 2011; Næss 2004; etc.), as illustrated by the pair of examples from Hindi given in (1).

HINDI (INDO-EUROPEAN)

(1) a. Ilaa-ne ek bacee-ko utʰaayaa
   Ila-ERG one child-ACC lift-PERF
   ‘Ila lifted a child.’

b. Ilaa-ne ek haar utʰaayaa
   Ila-ERG one necklace.NOM lift-PERF
   ‘Ila lifted a necklace.’ (Mohanan 1994:79)

DOM is often used as an umbrella term,² most frequently including systems exhibiting optional object marking, in which an object marker can optionally be present or absent without affecting its grammatical function, as is the case in Hindi, and those showing alternating marking, where two morphological case

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² Distinction is also made between differential case marking of object, which is dependent marking by morphological case or adpositions, and differential object indexation, occurring on the predicate (Iemmolo 2011; Witzlack-Makarevich & Seržant 2018). In the present paper, the term DOM is used only to designate case marking on dependent.
markers alternatively mark the object (for a detailed discussion on this issue see Chappell & Verstraete 2019).

Recurrent parameters of DOM involve animacy (humanness), definiteness, specificity, and information structure of the object (Aissen 2003; Dalrymple & Nikolaeva 2011; Sinnemäki 2014; etc.). In many languages DOM operates under a synergy of multiple parameters. In Hindi, accusative marking is related to animacy and definiteness, while animate and definite inanimate objects receive overt marking (Mohanan 1994:84). In Dolakha Newar (Tibeto-Burman), DOM is co-regulated by the animacy and topicality of the object. Its distribution can be described by two probabilistic trends: (i) topic animate objects often receive case marking; (ii) inanimate objects can occasionally be case-marked if they refer to a salient entity (Genetti 1997, 2007, cited in Dalrymple & Nikolaeva 2011:137–139).

1.2 Sources and grammaticalization of DOM markers

Bossong (1985, 1991) points to datives and other spatial related markers such as locatives, allatives as common sources for DOM markers, as found in Romance and Semitic languages. This observation is also relevant to the Tibeto-Burman languages in which ‘locative-allative-dative-accusative’ syncretism prevails (LaPolla 1992, 2004).

The spatial and dative sources of DOM markers seem to be further compatible with a widely attested grammaticalization chain which accounts for the evolution of the accusative, with the allative as a starting point, and the dative as an intermediate stage (Heine 2009: 467–468; Heine & Kuteva 2002: 38–39; Lehmann 2015: 119; among others), as illustrated in (2).

(2) Common grammaticalization chain of case functions
    allative > dative > accusative (O) (Heine 2009: 468)

1.3 Genitive syncretism

It is typologically rare for the dative/accusative morpheme to be isomorphic with the genitive. Yet in the Gunnän Gurage (Ethio-Semitic) languages, a highly polyfunctional case marker jā- is used as the (optional) accusative, dative, and genitive (Meyer 2011: 1243), as shown by the examples from Ezha given in (3).

**Ezha (Ethio-Semitic)**

(3) a. *abza jā-miss-ween k’āt’t’gr-ə-n-im*
    Abza ACC-man-DEF kill.PFV-3M.SG.SJ-M.SG.OJ-CM
    ‘Abza killed the man’
b. *abza ja-dasta xʷett birr ab-ə-n-m
   Abza dat-Desta two Birr give PFV-3M.SG.SJ-3M.SG.OJ-CM
   ‘Abza gave two Birr to Desta.’

c. ja-dasta gred
   gen-Desta girl.PL
   ‘Desta’s daughters’ (Endalew 2017: 25, 27, 28)

In Tshangla (Bodish), the ending -ga falls into two functional domains, the locative-dative-(limited) accusative, and the genitive (Andvik 2010: 155–160). Both Gurage and Tshangla differ from languages like modern Mongolic (Janhunen 2003), in which the accusative/genitive morpheme does not involve other abstract case functions (Baerman’s 2009 Type 2, i.e case syncretism of a core case and a non-core case).

The question of whether dative-accusative-genitive syncretism resulted from a single source or represents an accidental isomorphy remains controversial in both Gurage and Tshangla. For Gurage, Hetzron (1977: 54) assumed an accidental syncretism due to the phonetic fusion of two distinct case morphemes – ‘lā- ‘to, for’ for the accusative/dative, and ‘zā- ‘for’ for the genitive. However, later scholars (Endalew 2017; Meyer 2005) prefer a common source for all of these functions, though a clear grammaticalization pathway leading to this syncretism has yet to be proposed. Concerning Tshangla, Andvik (2010: 161; 2017: 425) expresses uncertainty about a single source on the basis of dialectal evidence suggesting a proto-locative form *-gu probably distinct from the genitive *-ga.

This paper focuses on the case of Tangut (Rgyalrongic), in which a polyfunctional case marker 骓 jij\(^1\) exhibits an accusative/genitive syncretism similar to that observed in Gurage and Tshangla. I will argue that such syncretism in Tangut has resulted from the multi-path grammaticalization of a single locative source. Tangut is also unique in that the accusative/genitive morpheme 骓 jij\(^1\) (i) exhibits functional overlap with the dative \( \text{جمال} \)\(^4\) do\(^2\), and (ii) its locative source is obscure and can only be reconstructed through comparative data from modern Rgyalrongic languages. The aim of the paper is to illustrate that a typological rarity of extreme syncretism among abstract case functions can arise due to the superimposing of divergent grammaticalization pathways stemming from a spatial case, even if each individual pathway is typologically frequent.

The rest of the paper is organized as follows. In Section 2, I describe relevant morpho-syntactic features of Tangut. In Section 3, I analyze the clausal functions of the Tangut 骓 jij\(^1\), paying special attention to comparison with the dative \( \text{جمال} \)\(^4\) do\(^2\). Section 4 provides comparative data from West Rgyalrongic and core Rgyalrong, laying a framework for Section 5, which attempts to explain accusative/genitive syncretism as resulting from multiple grammaticalizations of
2. **Morpho-syntactic profile of Tangut**

Tangut is a verb final language, exhibiting templatic verbal morphology. The verbal template of Tangut is much simpler than those of modern Rgyalrongic languages (Jacques 2011), and can be divided into three domains, as summarized in Table 1: (i) the verb stem (including noun-verb and verb-verb compounds), (ii) verbal prefixes, including directional prefixes, encoding TAM values as well as certain orientation meanings (cf. Arakawa 2012; Beaudouin Accepted), negation, and other modal prefixes, and (iii) argument indexation suffixes (cf. Jacques 2011; Kepping 1975).

2.1 **Transitivity**

Since transitivity is crucial to understanding the clausal functions of "j(V)", which will be discussed in this paper later on Section 3, this section briefly introduces transitivity in Tangut.

As in other Rgyalrongic languages, transitivity in Tangut can be determined through indexation patterns, with intransitive and transitive verbs in Tangut following different indexation patterns (Beaudouin 2022; Gong 2001; Jacques 2014:216–224, etc.). Intransitive subjects (S) are pronominally represented by three suffixes: 𗧓2098-ŋa2 1SG, 𘉞4601-nja2 2SG, and 𗐱4884-nji2 1/2PL. The third person is unmarked.3

Transitive verbs have a maximum of two indexation slots, one for the subject (A) and one for the object (O). Alignment distinguishes three scenarios: (i) in a non-local scenario (3→3), the verb is always unmarked; (ii) in a local scenario (1→2, 2→1), the verb agrees with the patient; (iii) in a mixed domain (1/2→3, 3→1/2), the SAP argument is always pronominally represented on the verb, independent of its syntactic role. Table 2 illustrates the Tangut transitive paradigm with the causative auxiliary verb 𗟻0749-phji ‘to send, cause to do’.

A small number of transitive verbs have an additional stem [B] form, occurring in 1/2SG→3 forms (Gong 2001; Jacques 2009, 2014; Gong 2017). As shown in Table 2, the verb 𗟻0749-phji has a distinct stem [B] 𗠔4568-phjo, showing vowel alternation with the basic stem [A]. Jacques (2009) hypothesizes that vowel alter-

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3. Tangut also has an infrequent dual suffix 𗢮1326-kiı (Arakawa 2018).
nations in stem [B] originate from a third person patient suffix *-w (well attested in modern Situ, see Prins 2016: 390), which merged with the basic stem [A].

(4) Reconstructed stems of ‘to send, cause to do’

<table>
<thead>
<tr>
<th>Tangut</th>
<th>Pre-Tangut</th>
<th>(Jacques 2014: 84)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem [A]</td>
<td>𗟻</td>
<td>𘉞</td>
</tr>
<tr>
<td>phji¹</td>
<td>phja</td>
<td></td>
</tr>
<tr>
<td>Stem [B]</td>
<td>𗠔</td>
<td>𘉞</td>
</tr>
<tr>
<td>phjo²</td>
<td>phja-w</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Simplified verbal template of Tangut (based on Jacques 2011, 2014: 266)

<table>
<thead>
<tr>
<th>Directional prefixes</th>
<th>Negation</th>
<th>Modal</th>
<th>Noun stem</th>
<th>Verb stem</th>
<th>Auxiliary</th>
<th>Person</th>
<th>TAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIR1:</td>
<td>檝</td>
<td>𗊴</td>
<td>𗊴</td>
<td>𘉞</td>
<td>𘉞</td>
<td>𘉞</td>
<td>3916</td>
</tr>
<tr>
<td>PFV</td>
<td>a-</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>𘀆</td>
<td>1SG</td>
<td>-ŋa²</td>
<td>2098</td>
</tr>
<tr>
<td></td>
<td>ŭ</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>𘀆</td>
<td>2SG</td>
<td>-ŋa²</td>
<td>2098</td>
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<td></td>
<td>ŭ</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>𘀆</td>
<td>3SG</td>
<td>-ŋa²</td>
<td>2098</td>
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<td>aggable</td>
<td>mjii¹</td>
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<td>𘀆</td>
<td>1PL</td>
<td>-ŋa²</td>
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<tr>
<td></td>
<td>ŭ</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>𘀆</td>
<td>2PL</td>
<td>-ŋa²</td>
<td>2098</td>
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<tr>
<td></td>
<td>ŭ</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>𘀆</td>
<td>3PL</td>
<td>-ŋa²</td>
<td>2098</td>
</tr>
<tr>
<td>OPT</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>mjii¹</td>
<td>mjii¹</td>
</tr>
</tbody>
</table>

Table 2. Person indexation of 𗟻 phji¹ (stem [B] 𗠔 phjo²) ‘to send, cause to do’ (Gong 2017: 31)

<table>
<thead>
<tr>
<th>1SG</th>
<th>1PL</th>
<th>2SG</th>
<th>2PL</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
<tr>
<td>2SG</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
<tr>
<td>3SG</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
<tr>
<td>1PL</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
<tr>
<td>2PL</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
<tr>
<td>3</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
<td>𗟻 phji¹</td>
</tr>
</tbody>
</table>

Tangut also differs from modern Rgyalrongic languages in the emergence of non-finite forms in chained clauses (Jacques 2017; Beaudouin 2022). As in (5), verbal inflections are only present in the final clause, and are neutralized in the preceding clauses.
The neutralization of verbal inflections leads to ambiguities in transitivity marking in Tangut texts. Where there is an absence of morphological evidence, transitivity can be indicated on the basis of syntactic criteria, such ergative marking by 𘝦 5604 𘃡 5113 .TableName 3. Tangut case system (adapted from Beaudouin 2021)

<table>
<thead>
<tr>
<th>Abstract cases</th>
<th>Spatial cases</th>
<th>Non-spatial cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>𘝦 5604 𘃡 5113 .TableName 3.</td>
<td>Ergative</td>
<td>𘝦 5447  do²</td>
</tr>
<tr>
<td>𘝦 1139  jij¹</td>
<td>Genitive</td>
<td>𘝦 5856  ya²</td>
</tr>
<tr>
<td>𘝦 1139  jij¹</td>
<td>Accusative, oblique</td>
<td>𘝦 2983  u²</td>
</tr>
<tr>
<td>𘝦 5447  do²</td>
<td>Dative</td>
<td>𘝦 5993  kha¹</td>
</tr>
<tr>
<td>𘝦 0089  tehja²</td>
<td>Super-essive</td>
<td>𘝦 5399  khjua²</td>
</tr>
<tr>
<td>𘝦 1139  gu²</td>
<td>Med-esssive</td>
<td>𘝦 1473  su¹</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

The 𘝦 1139  jij¹ is versatile and is available for two functional domains (Kepping 1985: 145–148; Kotaka 2000; etc.). First, it functions as a genitive marker, express-
ing adnominal possession linking two noun phrases, or a noun phrase and a pronoun (e.g. (6)).

(6) Genitive 𗗙 1139 jij¹
[kjow¹.sia¹]pn= jij¹ [gji²]pe
PN: Jiang.Shi=GEN wife
‘Jiang Shi’s wife’ (Cixiaozhuan, Jacques 2007: 11)

Second, it occurs following a wide range of clausal functions, which can be subsumed under two labels, the accusative, marking indexable objects, or the oblique, occurring after various non-indexable functions.⁵

In terms of clausal functions, the distribution of 𗗙 1139 jij¹ partially overlaps with that of the dative 𘋩 5447 do¹, in particular after the R of ditransitive verbs.⁶ Beaudouin (2021) argues that the dative use of 𘋩 5447 do¹ developed from its allative source, i.e. marking the endpoint of a motion.⁷

The clausal functions of 𗗙 1139 jij¹ will be detailed in comparison with 𘋩 5447 do² in Section 3.

3. Clausal functions of 𗗙 1139 jij¹

This section examines the clausal functions of the case morpheme 𗗙 1139 jij¹ across three syntactic constructions, (i) object (O) marking with monotransitive verbs

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5. 𗗙 1139 jij¹ was previously described as an ‘anti-ergative’ marker (Jacques 2014, etc.), a term introduced in the field of Sino-Tibetan linguistics by LaPolla (1992, 2004) as a kind of semantico-pragmatically-based marking of grammatical relations, opposed to the ergative. This label is not used in this article, as one of the objectives of the paper is to specify the precise syntactic distribution of a particular case marker in order to trace its historical development. Given its flexible syntactic distribution, 𗗙 1139 jij¹ will be glossed here as GEN, ACC or OBL, according to the syntactic function it marks.

6. The understanding of ditransitive verbs here follows Malchukov et al. (2010: 1) and refers to verbs having three arguments, prototypically associated with the semantic roles of Agent (A), recipient (R), and Theme (T).

7. There is no consensus on the case morpheme 𘋩 5447 do². Nishida (1989 [2012]: 479) and Arakawa (2010: 158) analyzed it as a pure locative case (場所格), expressing stative location as well as the endpoint of a motion. At the same time, they recognized 𘕿 5856 ya² as an accusative/ dative (對格/與格) case, co-existing with its locative source. Such differences could be relevant to corpus types. In my own corpus, since 𘋩 5447 do² is attested with a dative use while 𘕿 5856 ya² does not have significant dative/accusative functions, I follow the analysis of Beaudouin (2021). Systematic analyses of these two case morphemes awaits future investigation.
(Section 3.1), (ii) recipient (R) marking with (non-derived) ditransitive verbs (Section 3.2), and (iii) non-subject argument marking in auxiliary causative constructions, involving argument promotion (Section 3.3).

3.1 Monotransitive verbs: Optional O marking

One of the most common uses of 咝 in Tangut is as a DOM marker. The presence or absence of 咝 does not affect object indexation, with the latter following syntactic rules.

Optional O marking with 咝 occurs on the basis of semantico-pragmatic properties of objects, and can thus be described as a prominence-based rule co-regulated by humanness, as noted in previous studies (Arakawa 2010: 161; Kotaka 2000: 79–80), definiteness, and the discourse topicality of the object.

Examples (7) and (8) illustrate the effect of definiteness on the distribution of 咝. With the same monotransitive verb 竅 ‘to kill’, overt case marking is present for a definite human object in (7), but is absent for an indefinite human object in (8).

(7) 咝 jij 竅 [kju we dzjwo]⁴ = dzjii₁ [tciow₁.tshji₂]⁰ = jij₁ dja²-sja¹
Ju.city people=erg PN:Zhuochi=acc dir1:pfv-to.kill
‘The people of Ju city killed Zhuochi.’ (Shi et al., 1993: 79)

(8) 竅 jqi⁴ [dzjwi₁ nji₁ nwar₁.tshjiw₂ wo₃.tshjiw₂]⁰ = dzjii₁ nji₂ zji² [dzjwo²
time emperor aunt royal.woman servant=erg day time people
one dir1:pfv-to.kill
‘At that time, the servant of the emperor’s aunt killed a person in the daytime.’ (Shi et al. 1993: 42)

Human and definite objects are not marked if they do not have discourse prominence. In (9), the human and definite object the Minister Pi is unmarked. In this

8. The term ‘prominence’ in this paper is used in a similar way as in Aissen (2003) and de Swart (2007) and refers to features triggering DOM. The only difference is that here prominence also includes topicality in addition to humanness/animacy and definiteness/specificity.
instance, it is a non-topical object mentioned in an account as incidental information at the ending of a story.\(^9\)

\[(9) \text{shi}^4456 \text{shi}^3508 \text{shi}^22921 \text{shi}^15815 \text{shi}^4225\]

\[
[\text{tha}^2 \text{bji}^2 \text{phji}^1] t \text{si}^1 \text{ja}^1
\]

Minister Pi also kill (Shi et al. 1993: 55)

(The finally, the King of Yue destroyed the country of Wu, exiled the King Fuchai of Wu) also killed the Minister Pi.

The prominence-based rule of Tangut optional O marking shows three probabilistic tendencies: (i) human/definite objects are most likely to take overt case marking; (ii) animate and definite objects are occasionally found bearing case marking; (iii) inanimate objects are not excluded from case marking (Arakawa 2010: 161) (e.g. (10)), but are the least frequently marked type.

\[(10) \text{shi}^42104 \text{shi}^32857 \text{shi}^21139 \text{shi}^11832\]

\[
[\text{cji}^1 \text{no}^2] o \text{ji}^1 \text{dji}^2
\]

Previous illness=ACC to.heal \(^A\)

‘Cure the previous illness (先の病治す)’ (心経03a-1-1, r Arakawa 2010: 161)

3.2 Ditransitive verbs: Alternating R marking

Typical ditransitive verbs in Tangut include ‘Give’- and ‘Say’-verbs, which are morphologically transitive, with two indexation slots for A and O. Most of them are morphologically indirective,\(^10\) with the T indexed on the verb as the object (T=O).\(^11\) The R, though non-indexable, receives obligatory case marking with the dative \(\text{shi}^5447\text{do}^2\) or the oblique \(\text{shi}^{1139}\text{ji}^j\).

The distribution of \(\text{shi}^{1139}\text{ji}^j\) and \(\text{shi}^{5447}\text{do}^2\) in R marking tends to be complementary in Tangut. The postposition \(\text{shi}^{1139}\text{ji}^j\) shows idiosyncratic distribution

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9. Topicality can be measured by referential distance (Givón 1994: 10), as no antecedent is found in the three preceding sentences in the text. A corpus-based study measuring the referential distance and topical persistence of unmarked objects in Tangut is beyond the scope of this paper, but is an anticipated line of inquiry for future studies.

10. This paper follows Malchukov et al.’s (2010) distinction between secundativity and indirectivity. In Rgyalrongic languages, secundative and indirective verbs are distinguished through verbal morphology, see Table 5, and Lai (2017: 424–426; 2021) for a detailed discussion.

11. Due to the neutralization of verbal inflections in Tangut texts (cf. Section 2.1), morphological indirectivity is not always obvious.
with a few Give-verbs, such as 𘓯1105khjow'[([B] 𘎾3644khjɨj')]12 'to give, grant' and 𘈈2047mji 'to grant'. The dative 𘋩5447do2 is found with many other 'Give'-verbs, among which are 𗼒2815kuh 'to tribute, consecrate', or 𗨳3175tji 'to return' (for a list of verbs selecting 𘋩5447do2, see Beaudouin 2021).

However, there are verbs of which the R can be marker with either the oblique 𗗙1139jij or the dative 𘋩5447do, as exemplified by the verb 𘎪5612tshiij' ([B] 𘀽3974tshjii) 'to say, speak'. In Example (11), the addressee (R), Chen Zheng, is marked with 𘋩5447do2.

(11) 3→3
𘄴1319𘟙3830𗋕2019𗳷1796𗂧2937𘒏1531𘆝0764𘅣1183𘔜0298𗑃5055𘋩5447𘙇0795𘎪5612
[tshji1njjj2thja1[tshju1lhjii2gii1rjj1rja2][tshji1.teji1]=do2]
Qi king DEM Chu country army horse affaire PN:Chen.Zheng=DAT
rjj1-tshjiij
DIR1:PFV-to.say[A]
'The king of Qi spoke about the affair of the army of Chu to Chen Zheng.'
(Leilin, 03.27B.6)

However, in (12), the addressee (R), your majesty, is marked by 𗗙1139jij'. Note that morphological indirectivity is clearly indicated in (12): the verb occurs in its stem [B] form 𘎪3974tshjiij2 (< Pre-Tangut *tshjew-w, Jacques 2014: 170–171), indicating that the theme, a counsel, is indexed as the direct object.

(12) 1SG→3
𘀽3508𘀽1906𘀽3830𘀽4456𘀽1139𘀽1248𘀽0448𘀽3974𘀽2098
your.servant LNK king grand=obl stratagem one to.say[b]-1SG
臣更與大王說一計。
(Shi et al. 1993: 61)
'I'll tell your majesty a counsel (to save yourself from Wu’s invasion).'
(Leilin, 03.27B.6)

Note that in (12), the argument marked by 𗗙1139jij' is the addressee (R), as well as the beneficiary of the event. In the example above, extracted from the story of Goujian Miewu, King Goujian of Yue is faced with the threat of Wu’s invasion and asks his minister Fan Li for counsel. The addressee, the King Goujian, is also the one who would benefit from the speaker’s counsel. The alternating R marking in
and (12) is a potential indicator of prototypical semantic values of 𗗙1139jij’ and 𘋩5447$do$, a hypothesis which will be developed in Section 3.4.1.

3.3 Auxiliary causative

In Tangut, productive causativization is built with the auxiliary verb 𗟻9749phji’ (Stem [B] 𗠔4568phjo, cf. Table 2), originally a motion verb meaning 'to send' (Arakawa 2019; Shi 2020:290). The derived causative compound shows bipartite morphology, with the base verb and the causative auxiliary sharing TAM marking and argument indexation.

The case postposition 𗗙1139jij’ is particularly frequent in Tangut auxiliary causatives. While previous studies (Arakawa 2019:141–142; Kotaka 2000:73; Shi 2020:304) mention the optional presence of 𗗙1139jij’ after the causee, case marking for non-subject arguments in causative compounds is more complicated. I distinguish three such situations below.

3.3.1 Optional causee marking with 𗗙1139jij’

The syntax of causative compounds in Tangut distinguishes two situations according to the transitivity of the base verb.

Causative compounds derived from an intransitive base are bivalent, with the causer, the transitive subject (A), and the original S as the causee. In this case, the causee is also the syntactic object ([Acauser, Ocausee]). Both the causer and causee can be indexed on the verb. The causee optionally receives overt case marking with 𗗙1139jij’, in accordance with the same prominence-based rules observed for non-derived monotransitive verbs (cf. Section 3.1).

Example (13) shows a causative compound derived from the intransitive verb 𗈦1336lhạ ’be confused’. In addition being indexed (suffix 𘉞4601-nja2 marks the causer, and the stem [B] form of the causative auxiliary reflects the causee), the causee, common people is also case marked with 𗗙1139jij’.

(13) 2SG→3

汝有何術,而誣惑常人?

‘What technique do you have to cause confusion in common people?’

(Shi et al. 1993:115)

(Leilin, 05.21B.3–4)
With a transitive base, causativization derives a three-place predicate ([A_{causer}, O_{causee}, oblique]). It introduces a new agent as the causer (A_{causer}), and the original A becomes the causee (O_{causee}). Both the causer and the causee are indexable. The original O becomes an oblique of the derived causative compound, which is non-indexable. The phenomenon of optional causee marking is also observed with trivalent causative compounds. Example (14) has a trivalent causative compound ‘to cause to see, to show’, based on the transitive verb ‘to see’. The plural first person causee is pronominally represented on the verb by the plural suffix -nji^2, and is also case marked with jij^1. Example (14) has a trivalent causative compound ‘to cause to see, to show’, based on the transitive verb ‘to see’. The plural first person causee is pronominally represented on the verb by the plural suffix -nji^2, and is also case marked with jij^1. Example (14) has a trivalent causative compound ‘to cause to see, to show’, based on the transitive verb ‘to see’. The plural first person causee is pronominally represented on the verb by the plural suffix -nji^2, and is also case marked with jij^1.

[14] 2→1PL

\[
\begin{align*}
\eta^2.nji^2 \rightarrow jij^1.kji^1.lji\text{-}jji^1.phji^1.nji^2 \\
1PL=ACC \quad \text{DIR:IMP-TO.SEE-CAUS}_{[A]} \cdot 1PL
\end{align*}
\]

‘Show it to us.’ (Kepping 1985: 228, citing Nevskij 1960: 591)

3.3.2 Optional marking on the oblique argument with jij^1

The postposition jij^1 is not dedicated only to optional causee marking. Though infrequent, it is also possible for the oblique argument to be overtly marked with jij^1. As evidenced by (15), with the causative verb ‘to cause to catch’, case marking occurs after the oblique argument Shijing.

[15] wēl.xew^1 a-tshja^1 dzjwo^2 zeew^2 sja^1.kjij^1=jij^1 ljü^2-phji^1

PN:Wenhou DIR:PFV-BE.ANGRY people.to.send PN:Shijing=OBL.TO.CATCH-CAUS_{[A]}

‘Wenhou became angry, and sent people to catch Shijing.’ (Shi et al., 1993: 39) (Leilin, 03.06A.5)

Although the presence of jij^1 can be explained by the discourse prominence of the argument Shijing as the protagonist of the story, we also notice that Shijing is the maleficiary,^13 affected by the causative event.

---

13. One of the reviewers points out that Examples (15) and (17) do not have a maleficiary in a typical sense, but a highly ‘affected patient’. The suggestion is not adopted, since there is no clear morphological evidence indicating that the arguments marked by jij^1 in the two examples are objects. Moreover, the term ‘affectee’ is avoided in the paper, as it is reminiscent of the theory of affectedness in DOM (Næss 2004), which might be relevant to DOM in Tangut but is beyond the scope of the current paper. Terminological clarification is expected for future works, as the term ‘affectee’ is used as an umbrella term subsuming both beneficiary and maleficiary in Geshiza Horpa (Honkasalo 2019: 494–495).
3.3.3 Alternative causee marking with \( \text{do}^{5447} \)

There are very few examples in my corpus in which the causee is marked by the postposition \( \text{do}^{5447} \). One such example is given in (16).

\[
(16) \quad \text{tejow}^1.p^1 \quad \text{ejwa}^2.giuu^1.teji^2=\text{do}^2 \quad \text{wji}^2.-\text{sej}^1.-\text{phji}^1 \\
\text{PN:Zhang.ben} \quad \text{PN:Chunyu.zhi=DAT} \quad \text{DIR1:PFV-to.calculate-CAUS}_{[A]} \\
\text{‘(Zhang Ben’s mother was seriously ill) Zhang Ben sought divination from Chuyu Zhi.’}^{14} \quad \text{(Leilin 06.14B.3–4)}
\]

The occurrence of \( \text{do}^{5447} \) instead of \( \text{jij}^1 \) after the causee in (16) could be motivated by semantic factors. In (16) Chunyu Zhi is not the argument affected by the causative event; it is the causer, Zhang Ben, asking after the fortune of his sick mother, who would benefit from the causative event.

3.4 Interim summary

3.4.1 Prototypical semantic values of \( \text{do}^{1139} \) and \( \text{do}^{5447} \)

The functional overlap between \( \text{do}^{1139} \) and \( \text{do}^{5447} \) in three-place predicates, including non-derived ditranstive verbs (Section 3.2) and causative constructions (Section 3.3) indicates potential semantic overlap in that they are goal-oriented. However, alternations after the R and the causee also suggest that they differ from each other semantically. The arguments marked by the yod postposition \( \text{jij}^1 \) are also associated with the semantic role of a bene-/maleficiary, which is affected by the event denoted by the predicate. Therefore, I propose Figure 3 to illustrate the prototypical semantic values of \( \text{do}^{1139} \) and \( \text{do}^{5447} \) in Tangut.

This hypothesis is tested in Example (17), which contains a verb-noun incorporated predicate \( \text{dzjwi}^1.-\text{lhjwa}^1 \) ‘to speak ill of’. The predicate involves two non-subject arguments: King Fuchai, the addressee, marked by the dative \( \text{do}^{5447} \), and Wu Zixu, marked by \( \text{jij}^1 \). Although the syntactic status of the argument marked with \( \text{jij}^1 \) is ambiguous and could be either an object or an oblique, it is clear that Wu Zixu is the maleficiary, affected by the action of Minister Pi’s slandering.

---

14. Shi et al. (1993: 132) provided a nearly word-to-word translation, 張本就淳于智處卜, in which \( \text{do}^{5447} \) is translated as 處 chû ‘place’, reminiscent of its original allative function. From the context we know that Zhang Ben seeks divination from someone skilled, Chuyu Zhi. The ambiguity here is in line with the functional continuum of \( \text{do}^{5447} \) after an NP human, ranging from the endpoint of a motion to an abstract goal. For a detailed account of the grammaticalization of \( \text{do}^{5447} \), see Beaudouin (2021).
Figure 3. Prototypical semantic values of 𗗙1139 jij¹ and 𘋩5447 do²

(17) [tha².bji².phji¹] [tsa¹.sju²]=jij¹
Minister.Pi PN:Wu.Zixu=ACC/OBL PN:Fuchai=DAT
kjî¹-dzjwì¹-lhjwa¹
DIR1:PFV-to.slander-tongue
大臣嚭谗于子胥于夫差。(Shi et al., 1993: 55)
‘The Minister Pi slandered Wu Zixu to the King Fuchai.’
(Leilin, 03.21A.7–21B.1)

3.4.2 Syntactic distribution of 𗗙1139 jij¹ and 𘋩5447 do²

Table 4 summarizes the syntactic distribution¹⁵ of 𗗙1139 jij¹ and 𘋩5447 do² in marking clausal functions.

Table 4. Syntactic distribution of 𗗙1139 jij¹ and 𘋩5447 do²

<table>
<thead>
<tr>
<th>Object (indexable)</th>
<th>Non-indexable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>Cause</td>
</tr>
<tr>
<td>𗗙1139 jij¹</td>
<td>✓</td>
</tr>
<tr>
<td>𘋩5447 do²</td>
<td>rare</td>
</tr>
</tbody>
</table>

¹⁵. Kepping (1985: 229–230) also mentioned the occurrence of 𗗙1139 jij¹ after intransitive subjects. Due to a scarcity of examples, the phenomenon is still unclear and should await further studies. Optional intransitive subject marking also exists in other Tibeto-Burman languages. In Lhasa Tibetan, the dative can optionally occur after intransitive subjects, which could be related to both event semantics of controllability and information structure (Simon 2016: 340–341). On the other hand, the use of a subject marker for objects is also observed sporadically, for example in Burmese, for which Chappell & Verstraete (2019) suggest a possible reanalysis of a relevant morpheme as a general marker of information structure. In addition, I also found optional T(heme) marking with very few ditransitive verbs in my corpus. These may be described as examples of Kittila’s (2006) ‘extended differential object marking.’ Both phenomena remain to be investigated with a larger corpus.
The most active range of \( \text{𘋩} \text{do} \) lies in the **non-indexable** interval. As Beaudouin (2021) remarks, within the source function of allative (i.e. goal of motion verbs), \( \text{𘋩} \text{do} \) already shows a preference to combine with human participants, which suggests a clear grammaticalization from allative to dative.

In contrast, \( \text{𗗙} \text{jij} \) shows a decreasing distribution from indexable to non-indexable functions. There is no internal evidence from Tangut suggesting a spatial related source for \( \text{𗗙} \text{jij} \), except for the fact that it is goal-oriented (cf. Figure 3). Furthermore, it is also difficult to suggest any directionality between the accusative and the genitive, although there are cases where \( \text{𗗙} \text{jij} \) exhibits a genitive/oblique ambiguity (see Section 4.1.2 for the same phenomenon in modern Rgyalrongic). In general, reanalysis of possessors as accusatives is typologically rare, and is considered counter-directional grammaticalization (Narrog 2014: 80).

The following sections examine comparative data from modern Rgyalrongic languages, in hopes of unveiling the origins of the postposition \( \text{𗗙} \text{jij} \) and explaining genitive/accusative syncretism.

4. **Cross-Rgyalrongic comparison**

The Tangut \( \text{𗗙} \text{jij} \) reflects the Proto-Rgyalrongic yod postposition \( *= \text{j}(V) \) (Jacques 2014: 210). Reflexes of this postposition are still productive in modern West Rgyalrongic languages and Situ Rgyalrong (i.e. the eastern branch).\(^{16}\) However, the yod postpositions in these modern relatives of Tangut function very differently. In modern West Rgyalrongic languages, the yod postpositions show a genitive/oblique syncretism (Section 4.1), and those in Situ basically function as general locatives (Section 4.2).

Despite their functional differences, the productive uses of the yod postpositions in modern Rgyalrongic languages can offer clues to possible sources of the Tangut \( \text{𗗙} \text{jij} \) and the associated genitive/accusative syncretism discussed in Section 5.

4.1 **Modern West Rgyalrongic: Genitive/oblique =jV**

The yod postpositions in modern West Rgyalrongic languages present genitive/oblique syncretism. For the genitive function, \( = \text{jV} \) serves to express adnominal

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\(^{16}\) Japhug (Northern Rgyalrong) preserves traces of the yod locative. The word \text{qhuj} ‘tonight’ is potentially a fossilized locative form of the relator noun \text{ɯ-qhu} ‘after’ (Jacques 2021: 330–331).
possession, as exemplified in (18). This clearly corresponds to the Tangut genitive 𗗙1139ji (e.g. Example 6).

**Wobzi Khroskyabs (West Rgyalrongic)**

(18) \[ \text{genitive} = ji \]

\[ [tʃaːi]^{PR}=ji \quad [pɪr]^{PE} \]

PN:Bkra.shis=GEN pen

‘Bkrashis’ pen’ (Lai 2017:185)

The oblique function of the yod postposition should be understood with respect to verb classification in modern Rgyalrongic languages (cf. Table 5), which is strictly based on morphological transitivity (i.e. indexation patterns) and case frames. In general, three non-subject categories can be distinguished, (i) the accusative (i.e. the indexable O), (ii) the dative, which is in most cases non-indexable, but is indexable with secundative verbs, and (iii) the oblique, which is non-indexable.

In the non-indexable domain, we also notice competition between the dative and the oblique in marking extended arguments in two constructions: (i) extended intransitive verbs, and (ii) indirective verbs.

**Table 5.** Verb classification, indexation types and case frames in modern West Rgyalrongic languages (based on Lai 2017: 2021)*

<table>
<thead>
<tr>
<th>Verb type</th>
<th>Indexation</th>
<th>Case frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>V[S]</td>
<td>S=ø</td>
</tr>
<tr>
<td>Semi-transitive</td>
<td>V[S]</td>
<td>S=ø</td>
</tr>
<tr>
<td>Extended intransitive</td>
<td>V[A,O]</td>
<td>A(=ERG)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A(=ERG)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A(=ERG)</td>
</tr>
<tr>
<td>Transitive Indirect</td>
<td>V[A,R=O]</td>
<td>A(=ERG)</td>
</tr>
<tr>
<td>Transitive</td>
<td>V[A,T=O]</td>
<td>A(=ERG)</td>
</tr>
<tr>
<td>Multitransitive</td>
<td>A(=ERG)</td>
<td>T=ø</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* E stands for the extended argument (cf. Dixon & Aikhenvald 2000).

**4.1.1 Extended intransitive verbs**

The dative that marks extended arguments shows idiosyncratic distribution, and is found with verbs such as ‘to help’ (ɣə̂r in Khroskyabs, ɣor in Geshiza), ‘to fear’ (nscə̂r in Khroskyabs, steər in Geshiza) (Honkasalo 2019: 472; Lai 2017: 234–235).
The distribution of the oblique \( jV \) is rarely idiosyncratic, and is associated with a predictable semantic role of experiencer (Honkasalo 2019:494). It is typically found with stative verbs, alternating between basic intransitive \([S=\emptyset]\) and extended intransitive \([S=\emptyset, E=\text{obl}]\). This is exemplified by the modal verb \( rō \) ‘be necessary, should’ in Khroskyabs, which is intransitive and basically involves an impersonal subject, as in (19a). It can be ‘supplemented’ with an additional non-subject argument marked by the oblique \( =ji \), expressing the meaning ‘to want, need; be necessary to’, as in (19b).

**WOBZI KHRosKYABS (WEST RGYALRONGIC)**

(19) a.  \( rō \ [S=\emptyset] \) ‘be necessary, should’

\[ \text{ægæ \ } jɛd=\gammaə \quad \text{tsʰâtsʰâ \ } \text{rzâ \ } \text{rō} \]

\[ \text{lnk \ water=}\text{ins well \ to.wash}_1 \text{should} \]

‘Then, one should wash them well with water. (Lit: washing them well with water is necessary)’

(Lai 2017: 586)

b.  \( rō \ [S=\emptyset, E=\text{obl}] \) ‘want, be necessary to’

\[ \text{nû=ji \quad tʰâ=jaë \quad rə-ró} \]

\[ \text{2sg=obl \ whatever=many \ npst-be.necessary}_1 \]

‘You want too much (Lit: Too much things are necessary to you)’

(Lai 2017: 371)

### 4.1.2 Indirective verbs

The dative is the most important means for \( R \) marking. It occurs after the \( R \) of all secundative (e.g., ‘to feed’: Khroskyabs \( b\dot{ə} \), Geshiza \( mə \)) and most indirective (e.g., ‘to ask’: Geshiza \( rjæ \), Khroskyabs \( rɣǽ \)) verbs in modern West Rgyalrongic languages. Only a small proportion of indirective verbs with their \( R \) marked by the oblique, are typically associated with the semantic role of a bene-/maleficiary (Honkasalo 2019:494–496).

First, manipulation verbs (e.g. Khroskyabs \( vǽ \) ‘to bring’, \( tʰâ \) ‘to take away (to)’; Geshiza \( mbe \) ‘to carry away’, \( nzæ \) ‘to bring’) are subsumed under a larger semantic class of orientable verbs, further details of which are discussed in Section 4.2) consist a particular subtype of indirective verbs in Rgyalrongic languages. They denote an induced motion, the \( R \) of which can be understood as an abstract goal intrinsically required by the verb’s semantics. As in (20), the oblique \( =je \), merged with plural marker \( ni \), serves to mark the \( R \) of the verb \( nzæ \) ‘to bring’.

---

17. Productive alternations between intransitive and extended intransitive could ultimately give rise to idiosyncrasies. The Geshiza verb \( ɖʐæn \) ‘to miss (someone)’, requiring an experiencer marked by the oblique \( =je \) (Honkasalo 2019:468), could be lexicalized from the alternating structure \([S, E=\text{obl}]\) of a basic intransitive verb \( *dʐæn \) ‘to lack’ \([S]\).
GESHIZA (WEST RGYALRONGIC)

(20)  

\[ n'acc \quad \eta=ni \quad \text{evening} \quad \text{vd}=\text{wo} <\text{tienxua}> \quad \text{dae-n}=\text{shi} \]

\[ \text{‘In the evening, our friend called us.’} \quad \text{(Honkasalo 2019: 372)} \]

Second, the oblique can occur with a group of monotransitive verbs which do not denote a motion event, and optionally ‘supplement’ a third argument acting as the bene-/maleficiary of the denoted action (Honkasalo 2019: 483). In (21), the yod postposition =je supplements a beneficiary, the Balang villagers, of the action denoted by the verb \[ v=qla \quad \text{‘to divide’}. \]

GESHIZA (WEST RGYALRONGIC)

(21)  

\[ v=qla \quad \text{‘to divide’} \quad \text{[S=erg, T, R=obl]} \]

\[ \text{lmo} \quad \text{wo} \quad \text{æ-la} \quad \text{dae-v-sæ} \quad zda \]

\[ \text{3.erg bear one-clf.indef.abs pfv-inv-kill.pst.3 aux.exp.perf} \]

\[ \text{dae-v-sæ} \quad \text{te}=\text{rae} \quad \text{næ-v-te}=\text{rae} \quad \text{bora} \]

\[ \text{pfv-inv-kill.pst.3 when=lnk pfv.dir-inv-bring.pst.3=lnk topn} \]

\[ \text{stəpə=je} \quad \text{dae-v}=\text{qla-s}=\text{shi} \quad \eta=\text{nu} \]

\[ \text{villagers=obl pfv-inv-divide.pst.3-nmlz cop.3} \]

\[ \text{‘He has killed a bear. When killing the bear he brought it down (to Balang),} \]

\[ \text{and divided it for Balang villagers.’} \quad \text{(Honkasalo 2019: 495)} \]

Some transitive verbs can be extended to become quadrivalent, associating with three non-subject arguments: a non-casemarked Theme, a Recipient marked with the oblique, and a Source argument marked with the dative (Lai 2017:187; Honkasalo 2019:485–486). In (22), with the manipulation verb \[ \text{(rə)}=\text{væd} \quad \text{(Stem II}_{zəm} \quad \text{‘to bring’ in Khroskyabs, the dative }=\text{ke} \quad \text{yields an ablative reading and marks the source of the transfer event. The ablative reading, which seems to be semantically contradictory with the dative one, originates from its original adessive function ‘near, at the place of…’} \quad \text{(Lai 2017:187).} \]

WOBZI KHROSKYABS (WEST RGYALRONGIC)

(22)  

\[ zəm \quad \text{‘to bring’} \]

\[ tsa=\text{ya} \quad \text{n}=\text{ji} \quad \text{kap}=\text{ya}=\text{ke} \quad \text{k-u-zəm} \]

\[ \text{Bkrashis=erg 2sg=obl/gen book 1sg=abl pst-inv-to.bring}_{II} \]

\[ \text{‘Bkrashis brought you a book from me.’} \quad \text{(Lai 2017:187)} \]

Although in (22) the yod postposition =ji is ambiguous due to the contiguity of the R and the T and could be either an oblique (encoding the beneficiary) or a genitive (encoding the possessor), its goal-oriented property is obvious, and the inverse case alignment is ungrammatical.
4.2 Situ Rgyalrong: General locative =j

The yod postposition occurs in a non-syllabic form =j in most Situ dialects (Lin 1993: 325–330; Lin 2017: 63–64; Prins 2016: 259–260; Zhang 2020: 339–341; etc.). Like its syllabic cognates =jV in the West branch, it also operates at the phrasal level.18

As a general locative, =j in Situ has two identifiable interpretations: as a locative expressing stative location (e.g. (23a)) and as an allative indicating the end point of a motion (e.g. (23b)). The allative reading is triggered with orientable verbs, including (i) motion verbs such as ‘to go’ and ‘to come’, (ii) manipulation verbs denoting an induced motion, such as ‘to take’, and (iii) orienting verbs denoting a fictive motion. These verbs morpho-syntactically require a goal argument obligatorily marked with the locative.

BRAG-BAR SITU

(23) a. Locative: stative location
   \[ŋə-wûj\quad kanəs\quad ta\quad [\text{to-jém}=j]\quad \etaəs\text{-nte}\]
   1SG.Poss-grandson two Det Poss.INDF-house=LOC bə₁-3DU
   ‘My two grandsons are at home.’

b. Allative: endpoint of a motion
   \[[a\text{-tié}=j]\quad re\text{-bzê-n}\]
   PROX-up=ALL IMP:UP-COME₁-2SG
   ‘Come up.’ (Lit: come to the upper part)

Locative phrases in Situ often occur in one of the two syntactic positions: as an oblique argument (e.g. (23a); (23b)), or as an adjunct. Two locative phrases can occur successively, with an ‘outer’ locative adjunct providing background information and preceding an ‘inner’ locative, as in (24). Note that though not obligatory, the ‘outer’ locative is followed by the prominence marker kə, which developed from an ergative source (Prins 2016: 217–237; Zhang 2020: 25–26).

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18. In some varieties, the yod postpositions develop new functions as clause subordinators. The Khroskyabs =ji has developed the function of a relativizer from a genitive (Lai: 2018). In Brag-bar (Situ), the locative =j can occur after nominalized adverbial clauses.

19. Orientable verbs in Rgyalrongic languages constitute a semantic class exhibiting distinct morphological behaviors. While most verbs have one or two directional prefixes which have lexicalized for the perfective and imperative as pure tame markers, orientable verbs are free to select directional prefixes, encoding both spatial orientations and tame values. See Zhang (2020: 369–399) for details on directional prefixes and orientability in Situ, and Jacques (2021: 621–681) for the Northern branch.
The general locative =j in Situ has various non-spatial uses, all of which are related to the two syntactic positions of adjunct and oblique.

4.2.1 Delimitative adjuncts

The yod postposition =j in Situ can be used to encode sentence topics, roughly equivalent to English ‘as for’ topics. This function originates from the clause-external function of the locative =j, which is typically associated with the sentence initial position, as exemplified in (25).

4.2.2 Oblique

The oblique function of the Situ locative =j is similar yet not identical in terms of its distribution to the oblique =jV of modern West Rgyalrongic languages.

As shown in Table 6, the Situ locative =j is mainly found in constructions with (i) extended intransitive and (ii) indirective verbs. The locative and the dative also compete in the marking of extended arguments in these two constructions. However, the Situ dative wo-phá=j is only a semi-grammaticalized locative phrase, comprising (i) a possessive prefix, pronominally representing the possessor, (ii) a nominal base *pha ‘vicinity’,\(^\text{20}\) and (iii) the yod locative =j.\(^\text{21}\)

4.2.2.1 Extended intransitive verbs

With extended intransitive verbs, the Situ =j functions in the same way as does the oblique =jV in modern West Rgyalrongic languages (Sections 4.1.1). The yod locative =j in Situ is also found with stative verbs, to which it optionally introduces an experience (e.g. kə-rā V[S=Ø] ‘be necessary’; V[S=Ø, E=LOC] ‘be necessary to’).

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\(^\text{20}\) Reconstruction of this root awaits further revision. Dative relator nouns within Situ show irregular correspondences, with an aspirated labial ph- in Brag-bar wo-phá=j, and a softened labial approximant w- in Cogtse wo-wá=j (Lin 2016: 20).

\(^\text{21}\) In Brag-bar the yod locative can be replaced or followed by the locative təə in Brag-bar (Zhang 2020: 345). In Cogtse it can be replaced by the sibilant locative =s (Lin 2016).
Table 6. Verb classification, case marking and indexation types in Brag-bar Situ

<table>
<thead>
<tr>
<th>Verb type</th>
<th>Indexation</th>
<th>Argument structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>V[S]</td>
<td>S=∅</td>
</tr>
<tr>
<td>Semi-transitive</td>
<td>S=∅</td>
<td>E=LOC</td>
</tr>
<tr>
<td>Extended intransitive</td>
<td>S=∅</td>
<td>E=DAT</td>
</tr>
<tr>
<td>Transitive</td>
<td>V[A,O]</td>
<td>A(=erg) O=∅</td>
</tr>
</tbody>
</table>

4.2.2.2 Indirective verbs

A major distributional difference between the locative =j in Situ and the oblique =jV in modern West Rgyalrongic languages exists in ditransitive constructions. With indirective verbs, the Situ locative =j is reserved for manipulation verbs intrinsically involving a goal argument. The argument marked by =j can either be the concrete goal of motion, or the abstract goal of a bene-/maleficiary (typically a human participant). As exemplified by (26), =j marks the maleficiary of manipulation verb ka-sə-bʑê ‘to induce (a disaster)’, derived from the cislocative verb ka-bʑê ‘to come’ with the causative prefix sə-.

BRAG-BAR SITU
(26) wo-ŋkhú=j təj=ɔ māksən ma-ka-bdē ɲo
NEG-INF-AUTOBEN-CAUS-COME 3SG.POSS-WORDS SENS-be₁ ‘(This story is about) not bringing bad things to oneself in the future.’

Unlike modern West Rgyalrongic languages (Section 4.1.2), the yod postposition in Situ is not available for non-orientable monotransitive verbs, such as ‘to buy’, or ‘to divide’, since they do not intrinsically involve a goal argument. For these verbs, bene-/maleficiary encoding relies on pronominal possessive prefixes. As in (27), the beneficiary of the action of buying is encoded by pronominal possessive prefixes, with ηə- occurring on the theme, which is indexed on the verb as the syntactic O.

BRAG-BAR SITU
(27) ka-ki ‘to buy’ (2SG→3)
My head aches, buy me some medicine. (Lit: buy my medicine)

The restriction of locative encoding of bene-/maleficiary to orientable verbs in Situ reflects a very common extension of the allative; from a concrete goal to an abstract goal (cf. Heine 2009).

4.2.3 Locative =j and possession

In core Rgyalrong languages, possession is predominantly expressed through prefixing morphology. Most nouns are inalienably possessed, lexically taking an indefinite possessive prefix ta- or ta-. Definite possession is expressed by replacing the indefinite possessive with a set of pronominal possessive prefixes (cf. Jacques 2021:108; Zhang 2020:27; etc.). The possessive prefixes occur on the possessee NP, and agree with the person and number of the possessor, which can often be omitted, for instance:

BRAG-BAR SITU

(28) ta-mí → (ŋá) ŋə-mí
poss.indf-daughter 1SG 1SG.poss-daughter
‘daughter (default form)’ ‘my daughter’

In addition to the prevailing prefixing possessive, the locative =j in Situ can also serve to express possession in three constructions, as discussed below.

4.2.3.1 Locational possessive

One important function of the locative-existential clauses in Situ is to express the ‘locational possessive’ (cf. Stassen 2009: 49–50).22

The locational possessive in Situ comprises three elements: (i) the existential predicative ndō ‘exist’, occurring in an invariant form; (ii) the possessor (PR), occurring as an oblique argument, marked by the locative =j; and (iii) the possessee (PE), which is the intransitive subject of the existential copula, as in (29). Note that the possessee NP does not agree with the possessor NP in this example, and occurs in its default form with the indefinite possessive prefix ta-.

BRAG-BAR SITU

(29) locational possessive

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The distribution of the locational possessive varies across Situ dialects. For instance, it is used for kinship relations in Cogtse Situ (Lin 1993: 49–50), but such uses are not attested in Brag-bar Situ.

4.2.3.2 Locative pronouns

In Situ, the locative =j can be directly attached to personal and interrogative pronouns, causing them to function like possessive pronouns (Nagano 2018: 165–166; Prins 2016: 121; etc.). Situ locative pronouns often occur in equative copula clauses, and serve to emphasize a possessive relationship (Lin 1993: 329).

For instance, in (30), the singular first person locative pronoun ŋá=j appears with the equative copula ŋɐ̂ s ‘be’. The construction expresses a meaning similar to the dative possessive in French (c’est à moi).

**Brag-bar Situ**

(30) tó ta-rkâ tó ŋá=j ŋès
dem poss.indf-mule det 1sg=loc be₁ːfac
‘The mule is mine.’

The possessive reading of locative pronouns could have originated from the structures where the figure is omitted, and the locative phrase has a contextual referential status, as in (31).

**Brag-bar Situ**

(31) ŋá ŋa-ʒgû=j zɔ ŋɔj=ʒ=kɔn ndʒɔ~ndʒâ ostô
1sg 1sg.poss=loc also 2sg=loc=like that be.identical₁:red really
kɔ-di ndô
ptcpːs-a-be heav exist₁
‘That (burden) on my back is as heavy as (the one) on you.’ (Zhang 2020: 341)

4.2.3.3 ‘Double marking’

Situ also has a ‘double marking’ pattern, in which the possessor has an encliticized locative =j, and is indexed on the possessee NP with a possessor prefix. As in (32), the possessor NP, tɔ-rmɨɲo ‘people’, is both case marked by the yod locative =j, and pronominally represented on the possessee NP by the plural third person possessive prefix jii-.
As Heine (1997: 148) remarks, the phenomenon of ‘double marking’ of a possessor could be related to a ‘Topic Schema’ ‘(As for X), X’s Y’. As for Situ, the double encoding of possessors might have originated in constructions in which a possessor is also encoded as a sentence topic. In (33), the possessor NP marked by the locative occurs as the sentence topic. The possessive prefix \( \text{n}i- \) occurring on the possessee NP reflects the person and number of the topic possessor, and serves as morphological evidence that distinguishes the Topic possessive (33) from the Locational possessive (cf. Section 4.2.3.1).

In (33), the sentence topic and the possessee NP are separated by the optional determiner \( \text{to} \), which is used as a contrastive marker. The absence of this element could easily lead to contiguity of topic possessor and possessee, resulting in the ‘double marking’ pattern.

5. Multi-directional development of the yod postposition

The unidirectionality hypothesis of grammaticalization predicts increasing grammaticalization from spatial concepts to more abstract case functions (Heine et al. 1991: 156). Among the three Rgyalrongic branches discussed in this paper, it is appropriate to postulate that the Situ locative represents one of the more archaic uses of the Proto-Rgyalrongic yod postposition. The yod postposition’s development towards genitive/oblique syncretism in modern West Rgyalrongic, and towards genitive/accusative syncretism in Tangut can be explained through two main grammaticalization pathways. They are summarized in (34).

(34) a. From allative to accusative (Section 5.1)
   b. From locative to genitive (Section 5.2)
5.1 From allative to accusative

The promotion of the Proto-Rgyalrongic yod locative postposition to an accusative could have occurred in two steps. First, the allative was reanalyzed as an oblique case in Proto-West Rgyalrongic (Section 5.1.1), then the oblique was further promoted to an accusative in Tangut (Section 5.1.2).

5.1.1 From allative to oblique in West Rgyalrongic

One of the major functions of the oblique case \( =jV \) in modern West Rgyalrongic languages is to mark bene-/maleficiaries in indirect constructions (cf. Section 4.1.2). This function is also attested with the Situ locative \( =j \) as an extension of its allative function, albeit with a slightly different distribution (cf. Section 4.2.2.2). The transition from the Proto-Rgyalrongic allative function to the West Rgyalrongic oblique function (with bene-/maleficiary related meanings) may have involved: (i) the loss of the original spatial meaning, and (ii) reanalysis of the allative as a marker of bene-/maleficiaries.

This hypothesis finds support in the morpho-syntactic properties of motion verbs in West Rgyalrongic languages, which alternate between semitransitive, taking an unmarked goal argument \([S=\emptyset, E=\emptyset]\), and extended intransitive, with a postpositional goal argument \([S=\emptyset, E=\text{POST}]\) (cf. Table 5). At the synchronic level, differential goal marking is regulated by semantico-pragmatic factors: default goals are unmarked (e.g. (35a)), and overt marking occurs when there is a need for topological specification (e.g. (35b), (35c)).

**KHIRSKYBS (WEST RGYALRONGIC)**

<table>
<thead>
<tr>
<th>(35)</th>
<th>rbjáé ‘to arrive’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>ðêmo jóm rô-rbjáé=mbæ ø</td>
</tr>
<tr>
<td></td>
<td>‘Before mom arrives home...’</td>
</tr>
<tr>
<td>b.</td>
<td>rðzøngá  zó̆m=kʰe  læ-rbj-áŋ</td>
</tr>
<tr>
<td></td>
<td>‘I arrived near the Rdzøng’gag bridge’</td>
</tr>
<tr>
<td>c.</td>
<td>&lt;gún&gt; vjú=la  nœ-rbjí  kʰ ý ø</td>
</tr>
<tr>
<td></td>
<td>‘Gun went into the crowd.’</td>
</tr>
</tbody>
</table>

Unmarked goals in West Rgyalrongic languages (e.g. (35a)) correspond to strict locative marking in Situ (Section 4.2), and can be considered to represent a gap left by the loss of the original allative (spatial) function of the yod postposi-
tion. However, the yod postposition =jV did not completely disappear following the goal arguments of motion verbs in West Rgyalrongic languages. Rather, it is restricted to human goals. In (36), the yod postposition =ji occurs after a human goal, which can be understood as a metaphorical goal of the fictive motion denoted by the verb və̃a ‘to go’, which in this case can be translated to ‘to go well with, to fit’.

KHROSKYABS (WEST RGYALRONGIC)

(36) cô χtulü =tə ηê=ji davə naêa =tə ra-ηê
DEM hat=DEF 1SG=OBL exactly npst-go=DEF npst-be
‘This hat fits me very well (Lit: this hat goes well with me).’ (Lai 2017: 587)

This yod postposition’s semantic shift to goal [+human], as demonstrated in (36) also helps to explain its occurrence in ditransitive constructions with manipulation verbs (cf. Section 4.1.2). On the one hand, manipulation verbs are orientable and intrinsically include a goal argument; on the other hand, the R of a ditransitive construction is often a human participant. Under these circumstances, in extending to non-orientable verbs, such as ‘to buy’, it is likely that =jV develops into a genuine bene-/maleficiary marker.

(37) Allative (orientable verbs)

Goal > Human goal > Bene-/malefactive

Oblique (orientable; non-orientable verbs)

Therefore data from modern West Rgyalrongic languages support an increasing grammaticalization from allative to oblique, with bene-/maleficiary related functions (as summarized in 37); a typologically frequent grammaticalization pathway (Heine et al. 1991:151; Heine 2009; Narrog 2014; etc.).

5.1.2 Promotion of oblique to accusative in Tangut

Although it is widely accepted that the dative is a transit stage for the second grammaticalization of a spatial case to the accusative (cf. Section 1.2), the promotion of the Proto-West-Rgyalrongic oblique to the Tangut accusative seems to be an exception.

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23. In Situ, topological specifications are realized by locative phrases based on spatial relator nouns such as wo-liɛ́ =j ‘in the middle of’. Despite the semantic discrepancy, in West Rgyalrongic languages, some spatial case postpositions with topological specification have transparent sources cognate with spatial relator nouns in Situ. For example, Khroskyabs =la ‘locative:inside’ is cognate with Brag-bar wo-liɛ́ ‘middle’, and =go ‘loctaive:inside’ with Brag-bar wo-ŋgú ‘inside’. 
The yod postposition did not develop into a dative in any modern Rgyalrongic languages; on the contrary we observe that datives developed independently in different branches: (i) Khroskyabs and most Horpa languages have velar datives (Honkasalo 2019; Gates 2021; Lai 2017; Sun & Tian 2013); (ii) the Horpa of Stodste and Rtsangkhog have a dental dative =do (Sun 2007; Lai 2021) cognate with the Tangut allative/dative 𘋩5447do2; (iii) Situ has less grammaticalized dative relator nouns (cf. Section 4.2.2). This formal diversity suggests that dative as a dedicated case category was formed very late in Rgyalrongic languages. In Tangut, it is unclear whether or not 𗗙1139jij1 underwent a dative stage. Its limited occurrences after the R of non-derived ditransitive verbs still fall within the functional domain of the oblique.

An alternative hypothesis is that the Tangut accusative developed from oblique. This development is likely to have been realized via bridging syntactic constructions involving argument promotion, such as the auxiliary causative (cf. Section 3.3). For one thing, the causative auxiliary in Tangut 𗟻0749 (stem [B] 𗠔4568) is originally an orientable verb which means ‘to send’ and syntactically involves a goal argument. Therefore, the optional causee marking with 𗗙1139jij1 can be considered to have been initially driven by semantics properties, and in particular by humanness, as observed with =jV in modern West Rgyalrongic languages (e.g. Example 36). For another, since the auxiliary causative in Tangut is an argument promotion mechanism, it can promote the causee, which can be marked by the yod postposition, to a syntactically indexable O. In this case, 𗗙1139jij1, which was originally a marker for a human goal, would have been reanalyzed as an accusative marker.

Since an auxiliary causative based on a motion verb is Tangut innovation and is not found in any other Rgyalrongic languages, this also explains why the yod postposition did not develop an accusative in other West Rgyalrongic languages.

5.1.3 Information structure and accusative marking

Unlike the Romance languages, where DOM first emerges as a topic marking device (Iemmmolo 2011), information structure is likely to have been a contributor in the grammaticalization of the yod postposition in Rgyalrongic languages.

The existing data only allow us to speculate that information structure may have promoted the spreading of DOM in Tangut. In modern West Rgyalrongic, the two semantic roles that are associated with the oblique =jV, the experiencer and the bene-/maleficiary, are typically human and definite. Although Tangut DOM shows a strong tendency to appear with human and definite objects, it is not limited to them. Tangut DOM can potentially be grouped into the Type 3 of Dalrymple & Nikolaeva’s (2011: 215) typology, wherein DOM first applies to topic
and non-topic arguments with the semantic features of human and definite, and then spreads to other topic-worthy arguments. Needless to say, the relationship between information structure and DOM in Tangut is worthy of further study.

5.2 From locative to genitive

Since the genitive function of the yod postposition is shared by all West Rgyalrongic languages, reanalysis from the locative as a genitive should predate the West-Rgyalrongic split.

Reanalysis of spatial and directional markers as genitives is a typologically frequent occurrence (Heine 1997:145; Stassen 2009:122). For the Rgyalrongic languages, the reanalysis of a locative as a genitive could be the result of multiple different pathways. Among the five source schemes that Heine (1997:144) postulates for the expression of attributive possession, at least two (i) the Location Schema (Y at X), and (ii) the Topical Schema (as for X, X's Y) that are relevant to the present discussion. Both schema involve the reanalysis of constituency (Stassen 2009:113–135): two noun phrases occurring in adjacency in an original predicative possessive construction are reanalyzed as a single noun phrase, with the preceding noun phrase becoming the adnominal modifier of the subsequent noun phrase.

5.2.1 Location schema

The locational possessive, as observed in Situ (cf. Section 4.2.3.1), is the bridging construction which has allowed the reanalysis of a locative possessor as a genitive in West Rgyalrongic.

As illustrated in (38), due to the contiguity, the locative possessor, originally an oblique argument, is reanalyzed as an adnominal modifier of the subsequent possessee, which is the original subject of the copula predicate.

(38) Genitive possessive reanalyzed from locational possessive
   a. Locational possessive [PR=LOC] [PE] [COP.EX]
   b. Adnominal possessive [PR=GEN PE] ([COP.EX])

A locational possessive with the yod postposition can be traced back to Proto-Rgyalrongic. Tangut has a dozen existential verbs (Ikeda 2012; Shi 2020:318–355), among which 肪⁰⁹³⁰dju’, a common Rgyalrongic etymon (cognate with Khroskyabs dā, Situ ndō), demonstrates idiosyncratic combination with the yod
postposition when expressing possession (Kotaka 2000:74; Ikeda 2012:196), as
evidenced in (39).²⁴

(39) TANGUT (WEST RGYALRONGIC)

woman=GEN four integrity EX

‘Women have four integrity.’ (Shi et al. 1993:234, cited in Ikeda 2012:195)

A second pathway, through semantic extension from the Location Schema, could
do also be assumed. This would have happened with locative phrases with referential
status (cf. Section 4.2.3.2), and in particular with pronouns, as illustrated in (40).

(40) Metaphorical extension from the Location Schema

PRON=LOC ‘what is at X’ > PRON=GEN ‘X’s’

5.2.2 Topic Schema

Section 4.2.3.3 illustrated that the ‘double marking’ pattern in Situ might have
developed from the topic possessive, which suggests that a reanalysis from topic
possessor to genitive possessor was a possibility in Situ, though it remained a mar-
ginal phenomenon. (from (41a) to (41b)). Additionally, the ‘double marking’ pat-
tern itself (41b) can be reconstructed as an intermediate stage in the reanalysis
from topic possessive to genitive in West Rgyalrongic.

(41) Genitive possessive reanalyzed from the Topic Schema

a. Topic possessive       [PR=LOC] [PREF.Poss-PE] PREDICATE
b. Double marking        [PR=LOC Pref.Poss-PE]
c. Adominal possessive    [PR=GEN PE]

The transition from stage (41b) to (41c) was achieved through the loss of pos-
sessive prefixes, which is a shared morphological innovation of the West branch.
Although there are no clear traces of personal possessive prefixes left in any West
Rgyalrongic languages, indefinite possessive prefixes *tv- can be found as fos-
silized preinitials in a few lexical forms, such as the preinitial t- in Khroskyabs tvš-
‘fist’ (Proto-Khroskyabs *t[a]-C.kut, Lai 2017:155), cognate with Brag-bar Situ ta-
rkūt.

²⁴. Tangut has another locational possessive predicated by the existential verb 𘂬5670 o', but
the locative possessor is encoded by the general locative 𘕿5856 yA'.

The history of the polyfunctional 麗 jij' in Tangut [31]
5.3 Beneficiary possessor

Heine (1997: 146) also suggests a Goal Schema, namely a unidirectional grammaticalization from markers of allative, dative, or benefactive to genitive. Yet in West Rgyalrongic languages, it is not clear whether the bene-/maleficiary meaning historically precedes the genitive meaning.

Bene-/maleficiary encoding for non-orientable verbs with the yod postposition may have been a simple analogy from orientable verbs, and a side effect of the increasing grammaticalization of the allative in West Rgyalrongic (Section 5.1.1). However, we cannot preclude an alternative hypothesis that the newly developed genitive =jV occurs in compensation for the loss of possessive prefixes in West Rgyalrongic. Note that Core Rgyalrong languages use the possessive prefixes to encode the bene-/maleficiary of non-orientable verbs (cf. Section 4.2.2.2, see also Jacques 2021: 112–113, 317 for Northern Rgyalrong languages). The ambiguity between the bene-/maleficiary and genitive always exists.

Figure 4 summarizes all the assumed historical developments of the yod postposition in Rgyalrongic languages presented in research to date.

6. Conclusion

This paper explained the historical development of a polyfunctional case marker 𗗙 in Tangut, and attributed its genitive/accusative syncretism to multiple grammaticalization from a proto general locative case. This syncretism appears confusing in Tangut owing to the complete loss of the original locative function, which can only be reconstructed through comparison with more conservative sister languages (Section 4).

The two main grammaticalization pathways assumed in this paper, from allative to accusative, and from locative to genitive with the help of constructional change (Section 5), confirm the hypothesis of unidirectional grammaticalization
(Heine et al. 1991). Grammaticalization from a spatial concept to an accusative, and to a genitive are both recurrently attested. However, the case of Tangut shows that typological rarity can also arise through the layering of various well-attested grammaticalization pathways.

The Tangut case can contribute to typological studies of case functions in at least two ways. First, it seems that Tangut, together with Gurage languages and Tshangla, can be classified as demonstrating maximum syncretism of abstract case functions (oblique/dative, accusative, genitive). They can also be classified as a new subtype of Type 2 case syncretism (between a core case and a non-core case) in Baerman’s (2009) typology.

Second, the development of postpositional accusative marking in Tangut, as well as in modern West Rgyalrongic languages, challenges the ‘function continuity’ hypothesis, that states ‘If an adposition occurs as both Object marker and Allative marker, it also occurs as Dative marker’ (Blansitt 1988:186). Dedicated dative markers were formed after the branching-off of West Rgyalrongic, since in Core Rgyalrong the dative is expressed by semi-grammaticalized relator nouns; even inside the West branch etymological diversity of dative postpositions can be observed. In Tangut, it is unclear whether a dative stage preceded the accusative in the increasing grammaticalization of 芳花 1139 jij1. Postpositional accusative marking also emerges in modern West Rgyalrongic languages. In Khroskyabs, objects of transitive verbs denoting actions involving surface contact are marked by the superessive postposition =tʰɑ (Lai 2017). In Dgebshes Horpa (Sun & Tian 2013) and Mazur Stau (Gates 2021), the locative/allative =ʁɑ is developing towards an object marker. In both cases, the relevant morphemes have not passed through a dative stage.

One final remark should be made concerning the diachronic development of morpho-syntax in Rgyalrongic languages. In West Rgyalrongic languages, we observe a correlation between the simplification of verbal inflections and the emergence of dependent marking. Prevailing optionality is observed with case marking in Tangut, which has the most innovative and simplified verbal system (a few other cases of optional object marking are reported in Horpa, which has also undergone a partial collapse of its verbal system, cf. Gates 2021; Honkasalo 2019). Lexicalized case frames developed in Khroskyabs, a language which well preserves the verbal inflections. If we assume that adposition case marking emerges in compensation for the disintegration of old inflectional systems, as Bossong (1991) hypothesized for the Romance and Semitic languages, then the factors leading to optionality, as found in Tangut, and split marking, as found in modern West Rgyalrongic, are still in need of investigation.
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Abbreviations

1  first person  INDF  indefinite
2  second person  INF  infinitive
3  third person  INS  instrumental
1  Stem I  INV  inverse
II  Stem II  IPFV  imperfective
1'  Stem I'  LNK  linker
II'  Stem II'  LOC  locative
[A]  Stem A  M  masculine
[B]  Stem B  NEG  negative
A  transitive subject  NMLZ  nominalizer
ABL  ablative (before/above ABS)  NPST  non-past
ABS  absolutive  O(())  object
ACC  accusative  OBL  oblique
ADE  adessive  OPT  optative
ALL  allative  PE  possessor
AUTOBEN  autobenefactive  PERF  perfect
AUX  auxiliary  PFV  perfective
CAUS  causative  PL  plural
CLF  classifier  PM  prominence marker
CM  clause marker  PN  person name
COP  copula  POT  potential
DAT  dative  POSS  possessive
DEF  definite  PR  possessor
DEM  demonstrative  PROX  proximate
DET  determiner  PREF  prefix
DIR  directional prefix  PRON  pronoun
DIS  distal  PST  past
DOM  differential object marking  PTCP  participle
DOWN  downward direction  R  recipient
DU  dual  RED  reduplication
E  extended argument  S  intransitive subject
ERG  ergative  SG  singular
EX  existential predicate  SENS  sensory
EXP  experiential  SJ  subject
FAC  factual  T  theme
GEN  genitive  TAME  tense-aspect-modality-evidentiality
IFR  inferential  TOPN  toponym
IMP  imperative  UP  upward direction
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